IN THE CLAIMS

Please amend the claims as indicated in the following listing of claims, which replaces all previous listings.

1. (Currently Amended) An apparatus for selecting the optimum location of a network service based on a user's geographical location and the configuration of the apparatus by transparently altering Domain Name Service (DNS) messages, the apparatus comprising:

at least two network interfaces, and

a processor that captures data packets through the network interfaces, analyzes captured packets, determines the user's geo-location, and modifies ~~DNS packets~~ the question section, the answer section, or both, of DNS messages according to the user's geo-location to direct the user to the optimum server within the network service.

2. (Previously Presented) The apparatus of claim 1, wherein the optimum location is the geographically closest one.

3. (Previously Presented) The apparatus of claim 1, wherein the optimum location is that of the geographically closest server, which has been determined to be healthy and actively serving users' requests.

4. (Previously Presented) The apparatus of claim 3, wherein a healthy server is the one generating timely and correct responses to user requests.

5. (Previously Presented) The apparatus of claim 3, wherein the optimum location is the preferred location based on specific criteria chosen by a service administrator.

6. (Previously Presented) The apparatus of claim 1, wherein the location of a network service is one of the locations of many mirrored servers that are connected via a network.

7. (Previously Presented) The apparatus of claim 1, wherein the network service is an Internet network service.

8. (Previously Presented) The apparatus of claim 1, wherein the network service is an enterprise network service.

9. (Previously Presented) The apparatus of claim 1, wherein the configuration of the apparatus is a set of rules to control the optimum server selection process.

10. (Previously Presented) The apparatus of claim 1, wherein transparently altering DNS messages is performed to capture and to modify the content of the DNS messages by operating at the Open System Interconnection (OSI) model's second layer, which is transparent to Internet Protocol (IP) users.

11. (Previously Presented) The apparatus of claim 1, wherein the apparatus is attached to networks via said at least two network interfaces.

12. (Previously Presented) The apparatus of claim 1, wherein the apparatus captures every packet detected on any of its interfaces.

13. (Previously Presented) The apparatus of claim 1, wherein the apparatus analyzes the captured packets to determine network addresses, protocol port numbers, protocol message types, specific protocol fields, or a combination of these.

14. (Previously Presented) The apparatus of claim 1, wherein the apparatus comprises a previously built database, and wherein the apparatus determines the source IP address of the captured DNS message and consults its previously built database to determine the geographical location of the user that has sent the DNS message.

15. (Previously Presented) The apparatus of claim 1, wherein the apparatus modifies the captured DNS messages according to the geo-location of the user, and informs the user of the IP address of the optimum server.

16. (Previously Presented) The apparatus of claim 1, wherein the apparatus forwards every packet that is not a DNS message to another interface.

17. (Currently Amended) A method for selecting the optimum location of a network service based on a user's geographical location and the configuration of the method by transparently altering DNS messages, the method comprising:

capturing data packets,

analyzing captured packets,

determining the user's geo-location, and

modifying ~~DNS packets~~ the question section, the answer section, or both, of DNS messages according to the user's geo-location to direct the user to the optimum server.

18. (Previously Presented) The method of claim 17, wherein the optimum location is the geographically closest one.

19. (Previously Presented) The method of claim 17, wherein the optimum location is that of the geographically closest server, which has been determined to be healthy and actively serving users' requests.

20. (Previously Presented) The method of claim 19, wherein a healthy server is the one generating timely and correct responses to user requests.

21. (Previously Presented) The method of claim 17, wherein the optimum location is the preferred location for some users based on some criteria chosen by a service administrator.

22. (Previously Presented) The method of claim 17, wherein the location of a network service is one of the locations of many mirrored servers that are connected via a network.

23. (Previously Presented) The method of claim 17, wherein the network service is an Internet network service.

24. (Previously Presented) The method of claim 17, wherein the network service is an enterprise network service.

25. (Previously Presented) The method of claim 17, wherein the configuration of the method is a set of rules to control the optimum server selection process.

26. (Previously Presented) The method of claim 17, wherein transparently altering DNS messages is performed to capture and to modify the content of the DNS messages by operating at the OSI model's second layer, which is transparent to Internet Protocol (IP) users.

27. (Previously Presented) The method of claim 17, wherein the method analyzes the captured packets to determine network addresses, protocol port numbers, protocol message types, specific protocol fields, or a combination of these.

28. (Previously Presented) The method of claim 17, further comprising building a database, and wherein the method determines the source IP address of the captured DNS message and consults its previously built database to determine the geographical location of the user that has sent the DNS message.

29. (Previously Presented) The method of claim 17, wherein the method modifies the captured DNS messages according to the geo-location of the user, and informs the user of the IP address of the optimum server.

30. (Previously Presented) The method of claim 17, wherein the method forwards every packet that is not a DNS message.

31. (Currently Amended) A system for selecting the geographically closest server to a user requesting a service from a network, said system comprising:

at least two servers at geographically different locations in the network;

at least one DNS server; and

at least one hardware appliance comprising a database of IP addresses and the respective geographical locations associated with those IP addresses;

wherein the hardware appliance:

analyzes all DNS requests directed to a particular DNS server,

determines the geographically closest server providing the service requested by the user, and

provides the user the IP address of the geographically closest server that provides the requested service,

wherein the hardware appliance provides the IP address of the closest server by modifying the DNS request from the user and/or modifying the DNS response from the server by modifying the question section of the DNS request, the answer section of the DNS response, or both,

and wherein the hardware appliance is located between the particular DNS server and [[the]] a network backbone.

32. (Previously Presented) The system of claim 31, wherein the hardware appliance determines the geographically closest server by consulting the database.

33. (Previously Presented) The system of claim 31, wherein the hardware appliance:

modifies a general DNS request for a server providing a desired service by re-writing the request to request a specific geographically located server that provides the desired service, and

modifies the DNS response to match the original general DNS request.

34. (Previously Presented) The system of claim 31, wherein the hardware appliance is located between a DNS server and a network backbone.

35. (Previously Presented) The system of claim 31, comprising multiple hardware appliances.

36. (Previously Presented) The system of claim 31, wherein each DNS server has associated with it a hardware appliance.

37. (Currently Amended) A method of altering the DNS request of a user at a specific geographical location who is requesting a service from a network, said method comprising:

identifying the geographical location of a server serving the user; and

modifying the question section of a DNS request to request an IP address of a server that provides the requested service, and that is located at an optimal geographic location as compared to the user.

38. (Previously Presented) The method of claim 37, further comprising:

modifying a DNS response to match the original DNS request.

39. (Currently Amended) A method of modifying a DNS response from a DNS server, said method comprising:

receiving from a DNS server a response comprising an IP address for a specific server at a specific geo-location;

correlating that IP address with a general request from a user for the IP address of a server providing the requested service; and

modifying the answer section of a DNS server response to match the general request.

40. (Currently Amended) The method of claim 39, further comprising, prior to receiving a DNS response from a DNS server:

receiving a DNS request from a user;

determining the geo-location of the user by determining the geo-location of the server used by the user; and

altering the question section of the DNS request from the user from a general request for an IP address of a server providing a desired service to a specific request for a server at a specific location.

41. (Previously Presented) The method of claim 39, further comprising:

providing a hardware appliance that performs the recited steps.